2. 'Discovery of Mammalian Remains in the Old River-gravels of the Derwent near Derby.'—Part I. By H. H. Arnold-Bemrose, Esq., M.A., F.G.S.

A few mammalian bones were found in sinking a well at Allenton. On April 8th, 1895, the Authors commenced further excavations, and were successful in finding the lower jaw, 26 vertebræ, the os innominatum, left femur, tibia, fibula, calcaneum, cuboid, IV metatarsal, right fibula, calcaneum, cuboid, IV metatarsal, astragalus, left lunare and scaphoid, and portions of ribs of a *Hippopotamus*, also part of the breast-bone of an *Elephas*, and part of the tibia of a *Rhinoceros*. The *Hippopotamus*-bones were well-preserved, and probably belonged to one animal. The body was most likely stranded in an old channel of the River Derwent, and quickly covered up with sand and clay, but not before the bones were somewhat disturbed. They were found in a dark-coloured sand above the river-gravel, at a depth of 9 feet 8 inches below the surface.

Mr. Clement Reid found some twenty or more species of plant-remains in the sand. These plants 'indicate a moist meadow or swampy ground, and a temperate climate. The species are all widely distributed.'

Part II. By R. M. Deeley, Esq., F.G.S.

The deposits in which the bones were found occupy a wide trench which occurs on the inside edge of a gravel-terrace stretching for several miles south of Derby, at a height of 15 or 20 feet above the modern alluvial plain. The gravels are of later age than the Great Chalky Boulder Clay, and were formed at a time when the rivers were removing from their preglacial valleys the older Boulder Clays, with which they had been partially filled. Gravels of two ages are recognized: (*a*) recent gravels well stratified, undisturbed, and covered in many places by a thick layer of brick-earth; and (*b*) high-level gravels showing 'trail' and contorted bedding. It is in these latter gravels that the trench containing the mammalian remains occurs. The deposits occupying this old waterway and the contorted high-level gravels are placed together in the same period; and the Author gives reasons for supposing that they are both of interglacial age, the contortions and surface-disturbances having been produced during a recent cold period, most probably by a lobe of ice which passed down the Trent Valley. Several peculiar physical features of the valleys, such as the flowing surface-outlines of the higher gravel-terraces, and the occurrence of lacustrine deposits in the low-level area occupied by Sinfin Moor, are instanced as supporting this view.

MISCELLANEOUS.

On the Scaly Covering of the Regenerated Tails of Lizards. By Dr. Franz Werner, Assistant at the Zoological Institute and Royal University in Vienna.

The results of this research are as follows:—

1. The scales of the regenerated tail in certain Saurians, which

reproduce themselves with an altered scale-covering, instead of being constituted, as in the original, phylogenetically oldest forms of the family in question, on the primary tail, in all newly acquired parts exhibit an extensive differentiation from the form originally manifested, tubercle-scales, crests, spines, and keeled scales not being reproduced.

2. In the regeneration of the tails of all Saurians which reproduce them with an altered form of scale, the existing outer segmentation of the scaly coat, as well as the development of the preformed points of rupture of the skin, together with the differentiation of a vertebral column, is lost.

3. In some cases in which the scale-covering of the tip of the primary tail is different from that of the substituted tail the secondary tail agrees with the normal tail-tip, which consequently in this respect shows itself really in the original condition.

4. Differentiations of the scale-covering, which are wanting in the regenerated tails of lizards, such as tubercles, ridges, &c., are also not to be recognized in the embryos of the same species until they attain a certain age.

5. The regeneration of the tail generally fails to take place, or takes place to a very limited extent, when it has undergone a special differentiation into offensive or prehensile organs.

6. In cases of a second regeneration the tertiary tail agrees entirely with the secondary so far as the scale-covering is concerned.

7. Within the same family the regenerated tails of all forms agree, especially in the rule as to the arrangement of the scales.—*Sitzungsb. kais. Akad. der Wiss. Wien*, Jahrg. 1896, pp. 34–35.

On the Mollusca (Prosobranchiata and Opisthobranchiata, Scaphopoda and Lamellibranchiata) Dredged by the Austrian Deep-sea Expeditions of H.M.S. 'Pola' in the Years 1890–94. By Dr. Rudolf Sturany.

The question of the uniformity of the Molluscan fauna of the greater depths of the Mediterranean Sea (from about 400 metres onwards), which Fischer asserted and has proved from the results of the 'Travailleur' Expedition, are confirmed afresh by the dredgings of the 'Pola.' Further, the material obtained is of a kind to strengthen the conclusions of Dr. v. Marenzeller, recently published, which, based upon the nature of the various Echinoderms dredged at different depths and the uniform character of the whole deep-sea fauna from 200 metres up to the greatest depths, brought out the fact of the absence of a defined abyssal fauna.

Again, an Atlantic origin has very rightly been ascribed to the deep-sea fauna of the Mediterranean, from the fact that many abyssal mollusks of this basin are identical with Atlantic and North-Atlantic forms and occur in the Tertiary deposits of Sicily and Italy, and their ingress referred to a time when there was a much freer communication between the Atlantic and Mediterranean seas than exists at present (Jeffreys, Fischer).